

REMARKS/ARGUMENTS

Claims 1-15 are pending. Claims 1-10 have been rejected. By this Amendment, claims 11-15 are added. Reconsideration and withdrawal of the rejections are respectfully requested in view of the following remarks.

A. Entry of the amended claims is proper under 37 C.F.R. §1.116 since the amendments: (1) place the application in condition for allowance (for the reasons discussed herein); (2) do not raise any new issues requiring further search and/or consideration (since the amendments amplify issues previously discussed throughout prosecution without incorporating additional subject matter); and/or (3) place the application in better form for appeal (if necessary). Entry is thus requested.

B. Statement of the Substance of the Interview:

Applicant gratefully acknowledges the courtesies extended by Examiners Siddiqi and Maung to Applicant's representative, Carl Wesolowski, during a June 8, 2004 personal interview. The substance of the personal interview is incorporated in the following remarks.

During the interview, rejected independent claims was argued to be allowable over the Vanhoof reference because the Vanhoof references fails to teach or suggest at least various recited features such as a slave-logic and combinations thereof as recited in claim 1. However, during the interview, amendments to claim 1 and other independent claims were discussed that the Examiners indicated appear to distinguish the Vanhoof reference. See the Interview

Summary Record. However, Examiner Siddiqi indicated the amendments would raise new issues and also that a further search would be conducted.

No exhibit was presented or demonstration conducted during the interview.

Applicant respectfully requests that this paper be included in the record for purposes of satisfying the requirements under MPEP §713.04.

C. Claims 1-10 are rejected under 35 U.S.C. §102(e) as being allegedly anticipated by Vanhoof et al. (U.S. Patent No. 6,212,566) hereafter "Vanhoof". Applicant respectfully traverses the rejection.

(1) Applicant respectfully submits Vanhoof fails to disclose all the claimed features, as required by Section 102. With respect to claim 1, for example, Vanhoof fails to disclose at least features of a slave-logic configured to control a writing operation of the data-FIFO and count the length of the receiving data until an end-tap signal is inputted, a length-FIFO configured to store the data length counted by the slave-logic and combinations thereof as recited.

Vanhoof relates to an interprocess communication protocol system that provides a generic communication system for communication between specified processes in a complex digital system. The March 4, 2004 Office Action cites column 20, lines 28-29 and column 25, lines 43-46 in rejecting claim 1. In the portion of the applied patent referred to in the Office Action, column 25, lines 43-46 refers to a Transmit Data Source where the modem transmits the contents of a 67 byte FIFO 550 (see FIG. 11). If the FIFO 550 is filled with static data (e.g.

a text message), the modem transmits this message continuously. Further, Applicant respectfully submits that Vanhoof discloses a pre-set amount or size of the FIFO buffers 550, 552, which is less than a maximum that is set to 67 bytes. Thus, Vanhoof does not teach or suggest an end tag as a size of the transmit data source is known. See column 25 lines 43 - column 26 line 45 of Vanhoof. Neither this portion of Vanhoof nor any other portion appears to disclose a length-FIFO configured to store the data length counted by the slave-logic, nor does it disclose to count the length of the receiving data until an end-tap signal is inputted.

Additionally, column 20, lines 28-39 of Vanhoof discloses a transmitter side 520 having a plurality of slave transmitter channels 522A, 522B, 522C each of which has a spreader and a summing module, and a master transmitter channel 524 having an up-converter. The Office Action asserts that each slave transmitter channel (e.g., 522A, 522B, 522C) discloses "summing data produced the length of recited received and transmitted data." Applicant respectfully disagrees because Vanhoof discloses data from all spreaders is summed before up-conversion and transmission via a radio transmitter 526. Thus, the physical signals are combined and transmitted, however, Vanhoof does not disclose any hardware or software for determining a length in the slave or master transmitter channels. Further, Applicant respectfully submits that there is no need for such hardware or software after spreading (or de-spreading) using assigned codes (e.g., codes 0, 1, 2, 3) prior to transmission. Again, this portion of Vanhoof fails to teach or suggest the Applicant's claimed features as discussed above. See column 20, line 23-column 21, line 20 and Fig. 6 of Vanhoof.

Thus, although summing modules in slave transmitter (or receiver) channels combine signals in Vanhoof, they do not teach or suggest counting a length of the receiving data until an end-tab signal is inputted and combinations thereof.

Further, Applicant respectfully submits that the Office Action asserts a data-FIFO is disclosed by transmit data source e.g., 67 bit FIFO 550 citing column 25, lines 43-46 and Figure 11. However, Applicant respectfully notes that a pair of FIFO buffers 550, 552 are communication buffers between a PMCM 530 and a DSP 532. Thus, the asserted FIFO 550 is outside the PMCM and not connected to transmitter side 520 or receiver side 522 master/slave transmitter channels. In addition, a length of a frame in Vanhoof is preset according to a frame length command. See column 26, lines 33-37 of Vanhoof.

Moreover, Vanhoof fails to disclose a CPU configured to continuously read the data stored in the data-FIFO as much as the data read from the length-FIFO when an interrupt signal is inputted from the slave-logic and combinations thereof as recited in claim 1. Nor does Vanhoof teach or suggest modifications to its disclosure that would result in at least features of a data-FIFO, a slave-logic and a length-FIFO and combinations thereof.

Consequently, for at least these reasons, it is respectfully submitted that Vanhoof fails to disclose or suggest all of the claimed features of independent claim 1, as required by Section 102. Claims 2-5 are dependent claims that depend upon independent claim 1 and are allowable for at least the reasons discussed above with respect to independent claim 1 as well as for their additionally recited features.

(2) Independent claim 6 recites an inter-processor communication method of a mobile communication system comprising storing received data in a first region, counting the length of the received data stored in the first region, checking whether an end tag is received, storing the counted data length in a second region when the end tag is received and outputting an interrupt signal to a CPU, and continuously reading the data stored in the first region by the CPU as much as the data length stored in the second region.

Column 48, lines 8-11 of Vanhoof discloses that the C model of the FIFO is an infinite loop that performs an unblocked read and an unblocked write every iteration. In col. 35, lines 12-37, the Programmable Mobile Communication Modem (PMCM) generates a Tx interrupt every 8 bits. Internally, the DSP maintains a FIFO of 67 bytes and this is used to buffer between the UART or the ISA interface (which supplies the data) and the PMCM. Again, Vanhoof fails to teach or suggest storing received data in a first region and counting the length of the receiving data stored in the first region. The FIFO in Vanhoof is set to maintain prescribed amount (e.g., 2-67 bytes) of data. Thus, Applicant respectfully submits a data length is provided in Vanhoof, which teaches away from the end tag. In contrast, as recited in claim 6, a sequence of data frames received could each be a different length. Further, Applicant respectfully submits column 25, lines 25-30 disclose "on-turn TX on" and "off-turn TX off" which disclose starting and stopping transmission of the modem. Figure 12 in Vanhoof depicts a timing diagram for the generic interprocessor communication protocol. In col. 48, lines 13-15,

Vanhoof simply states that the 'str' and 'ack' signals are explicitly checked to maintain IO and FIFO integrity.

Thus, Applicant respectfully submits that there is no teaching or suggestion in Vanhoof of at least checking whether an end tag is received and storing the counted data length in a second region when the end tag is received and outputting an interrupt signal to a CPU and combinations thereof as recited in claim 6.

The corresponding description of Figure 12 of Vanhoof appears in col. 39, lines 28-52.

The description states that:

1. After the request has been recognized, the writing device stabilizes the data.
2. Next, the strobe 'str' signal is pulled up.
3. The reading device maintains the 'ack' signal down, otherwise no transfer occurs.
4. The reading device samples the strobe 'str' signal until it is high. The strobe 'str' makes an up-transition in this situation.
5. The reading device then samples the data.
6. The reading device pulls up the 'ack' signal.
7. Meanwhile, the reading device continuously samples the 'ack' signal, and when 'ack' goes high, the reading device pulls 'str' down again. The 'ack' signal only makes an up-transition in this situation.
8. The writing device then releases the data bus and the I/O function is complete.
9. Meanwhile, the reading device watches the strobe 'str' until it goes down, then the reading device finishes the I/O function, leaving the 'ack' signal high.

Again, Vanhoof fails to disclose checking whether an end tag is received, storing the counted data length in a second region when the end tag is received and outputting an interrupt signal to a CPU and combinations thereof as recited in claim 6.

For at least the reasons set forth above, it is respectfully submitted that Vanhoof fails to disclose or suggest all of the claimed features of independent claim 6, as required by Section 102. Claims 7-9 are dependent claims that depend upon independent claim 6 and are allowable for at least the reasons discussed above with respect to independent claim 6 as well as their additionally recited features.

(3) In addition to the above arguments that relate to features recited in claim 10, Applicant further respectfully submits that regions shown in Figure 11 are a transmission buffer 552 and a receive buffer 550. Since transmit and receive data are independent, Applicant respectfully submits the transmission buffer 552 and the receive buffer 550 do not teach or suggest at least features of two regions and combinations thereof as recited in claim 10. For at least these reasons, it is respectfully submitted that Vanhoof et al. fails to disclose or suggest all of the claimed features of independent claim 10, as required by Section 102. Withdrawal of the rejection of claims 1-10 under 35 U.S.C. §102 is respectfully requested.

D. Claims 11-15 are newly added by this Amendment and believed to be in condition for allowance.

CONCLUSION


In view of the foregoing amendments and remarks, it is respectfully submitted that the application is in condition for allowance. If the Examiner believes that any additional changes would place the application in better condition for allowance, the Examiner is invited to contact the undersigned attorney, CARL R. WESOLOWSKI, at the telephone number listed below.

Serial No. 09/801,639
Reply to Office Action of March 4, 2004

Docket No. P-195

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this, concurrent and future replies, including extension of time fees, to Deposit Account 16-0607 and please credit any excess fees to such deposit account.

Respectfully submitted,
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